R E M A R K S

The specification has been amended to provide a cross-reference to the previously filed International Application. The claims have also been amended to delete improper multiple dependencies, and to effect various minor formal corrections. No new matter has been introduced. Attached hereto is a marked-up version of the changes made to the application by this Preliminary Amendment.

In the event that there are any issues requiring discussion in this application, the Examiner is invited to contact Mr. Richard J. Gallagher, Registration No. 28,781 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

The specification has been amended to provide cross-referencing to the International Application.

In the Specification:

The paragraph beginning on page 53, line 15, has been amended as follows:

The ignition means comprises two electric ignition type igniters (12a, 12b) to be activated by an activating signal outputted when the sensor detects the impact, and the igniters are provided in parallel to each other in one initiator collar 14 so as to expose head portions thereof. By providing two igniters (12a, 12b) to one initiator collar 13 in this manner, two igniters are fixed in the initiator collar 13 to form a single member, thereby facilitating an assembly to the gas generator. Particularly in the gas generator illustrated in this drawing, since the initiator collar 13 is formed in a size capable of being inserted into the inner-cylindrical member 4, the initiator collar 13 with two igniters 12a and 12b is inserted into the inner cylinder 4, and then the igniters can be easily and securely fixed by crimping the lower end of the inner-cylindrical member 4 so as to fix the initiator collar. Further, when arranging two igniters (12a, 12b) in the initiator collar 13, a direction of each igniter can be easily controlled. These two igniters are arranged eccentrically to a center axis of the housing in the drawing. When the respective igniters (12a, 12b) are arranged in the same direction, **[as shown with a back view of the gas generator of the present embodiment in Fig.2]** lead wire 50 connecting the igniters (12a, 12b) and a

control unit **[(not shown)]** to each other can be drawn out on the same plane and in the same direction. **[In Fig. 2 the]** **The** lead wires 50 are connected to the respective igniters (12a, 12b) via connectors 50a, and these connectors are arranged in parallel to each other on the same plane. The lead wire transmitting an electrical signal (activating signal) to the igniter can be drawn out in a direction perpendicular to the axial direction of the housing (that is, a radial direction of the housing) by forming the connector in a L-letter shape. At this time, the lead wires connected to the respective igniters can also be drawn out in the same direction.

The paragraph beginning on page 57, line 18, has been amended as follows:

Also, in the gas generator illustrated in this drawing, **[as shown in a main portion enlarged view of Fig. 3]** the separating cylinder 14 positioned between the initiator collar and the partition wall is arranged so that hole portions 21 corresponding to an outer shape of the separating cylinder 14 are provided on the lower surface of the partition wall 7 and the upper surface of the initiator collar 13, and the upper and lower ends of the separating cylinder 14 are fitted into the respective hole portions. By arranging the separating cylinder 14 in this manner, a flame of the transfer charge generated in one of the transfer charge combustion chambers never directly burns the transfer charge in the other transfer charge accommodating chamber, and the gas generating agents stored in two combustion chambers are respectively ignited and burnt by the flame generated by the combustion of the transfer charges in the respective sections. Namely, in general, when transfer

charge burns in the separating cylinder 14 (that is, in the second transfer charge accommodating chamber), a pressure of the gas generated by the combustion expands the separating cylinder in the radial direction, however, by arranging the separating cylinder, **[in the manner shown in Fig. 3]** the upper and lower end portions of the separating cylinder are securely supported to peripheral walls of the hole portions where the respective portions are fitted, so that, in comparison with the case of simply interposing the separating cylinder between the partition wall and the initiator collar, leaking of the combustion gas and the flame of the transfer charge can be prevented unfailingly.

The paragraph beginning on page 68, line 11, has been amended as follows:

As mentioned above, also in the gas generator according to this embodiment, the gas generating agents (9a, 9b) stored in the respective combustion chambers (105a, 105b) are independently ignited and burnt by adjusting the activation timing of two igniters (12a, 12b), and thereby the output behavior (the operation performance) of the gas generator can be optionally adjusted. Consequently, in various circumstances such as the speed of the vehicle at a time of collision, an ambient temperature, development of an air bag can be most suitable when it is applied an air bag apparatus mentioned below. Incidentally, in relation to the embodiment shown in Fig. 2, two combustion chambers provided in the housing can be provided so as to be adjacent to each other in the axial direction and the radial direction of the housing, as shown in Fig. 3. Specifically, in the gas generator shown in Fig. 3, a partition wall 107' defining the first combustion chamber 105a',

the ignition means and the second combustion chamber 105b' is bent towards the axial direction, and then a tip end of the partition wall is formed in a flange shape to abut on the inner periphery of the housing so that the second combustion chamber 105b' is expanded in the axial direction of the housing. As a result, in the gas generator shown in Fig. 3, by expanding the second combustion chamber in the axial direction, namely, expanding the second combustion chamber into the first combustion chamber side, the first combustion chamber and the second combustion chamber become adjacent to each other in the axial direction and the radial direction of the housing. Furthermore, in this embodiment, as shown in Fig. 4, when a peripheral wall is provided to extend the partition wall 107" so that the flange-shaped portion thereof abuts on the sectioning member 160, a first combustion chamber 105a" and a second combustion chamber **[105"]** **105b"** are adjacent to each other in the radial direction of the housing and they are provided concentrically. As a result, the volume of the second combustion chamber can be made larger than that of the gas generator shown in Fig. 3. Particularly, in the gas generator shown in Fig. 3 and Fig. 4, the volume of the second combustion chamber can be made larger, which is preferable when a large amount of the second gas generating agent is used. Even the gas generator shown in Fig. 3 and Fig. 4 may be a gas generator for an air bag which is compact with a simple structure and the output's form (activation performance) of the gas generator can be optionally adjusted like the gas generator shown in Fig. 2. In the gas generator shown in Fig. 3 and Fig. 4, the same members as those in Fig. 2 are denoted by the same reference numerals, and explanation thereof is omitted.

The paragraph beginning on page 79, line 10, has been amended as follows:

Also, the flame generated due to a actuation of the second igniter 312b flows only in the second combustion chamber 305b through the second flame-transferring hole 319 formed in the circular hollow portion 352 of the sectioning circular member 350 exclusively to ignite and burn the second gas generating agent 309b and generator in this embodiment, the second transfer charge is not arranged and the second gas generating agent **[309a]** **309b** is ignited and burnt directly by the flame generated due to actuation of the second igniter 312b.

The paragraph beginning on page 96, line 3, has been amended as follows:

The gas generator comprises a housing 2003 which is formed by joining a diffuser shell 2001 with a gas discharge port **2026** and a closure shell 2002 forming an inner accommodating space with the diffuser shell, and an inner-cylindrical member 2004 formed in a substantially cylindrical shape disposed in the housing 2003, thereby making a first combustion chamber 2005a outside of the inner-cylindrical member 2004.

The paragraph beginning on page 131, line 14, has been amended as follows:

When the transfer charge 3016a stored in the first transfer charge accommodating chamber 3015a burns, a seal tape 3018 closing a flame-transferring hole 3017 formed in the inner-cylindrical member 3004 is ruptured so that the first transfer

charge accommodating chamber 3015a communicates with the first combustion chamber 3005a. Also, when the transfer charge 3016a stored in the second transfer charge accommodating charge 3015b burns, the seal tape 3020 closing a flame-transferring hole 3019 formed in a partition wall 3007 is ruptured so that the second transfer charge accommodating chamber 3015b communicates with the second combustion chamber 3005b. Accordingly, when the gas generator is activated, the flame generated when the first igniter 3012a is ignited and actuated ignites and burns the transfer charge 3016a in the accommodating chamber 3015a, and the flame thereof passes through a flame-transferring hole 3017 formed in the inner cylindrical member 3004 to ignite and burn the gas generating agent 3009a with [3007] seven holes stored in the first combustion chamber 3005a positioned in the radial direction of the accommodating chamber 3015a.

The paragraph beginning on page 135, line 17, has been amended as follows:

In the gas generator of this embodiment, when the first igniter 3012a disposed outside the separating cylinder 3014 which is inside the ignition means accommodating chamber 3008 is activated, the transfer charge 3016a stored in the first transfer charge accommodating chamber 3015b is ignited and burnt, and transferring hole 3017 in the inner-cylindrical member 3004 and burns the porous cylindrical first gas generating agent 3009a with **[3007]** **seven** holes stored in the first combustion chamber 3005a. At this time, the double layered seal tape 3011 closing the communication hole 3010 is neither ruptured nor peeled off because of improvement in the strength obtained by the total thickness of the seal tape and

alleviation of the reactive force of the seal tape itself mainly generated by existence of the second adhesive layer, and therefore, the internal pressure in the first combustion chamber 3005a can be increased up to the point such that the gas generating agent 3009a can be ignited and burnt smoothly.

The paragraph beginning on page 137, line 25, has been amended as follows:

In the gas generator for an air bag of the present invention, when the communication hole 3010 is closed by two sheets of stainless steel (SUS304) tapes (the tensile strength per one sheet is 54 kg/mm^2) and an adhesive (each of the first and second adhesive layers has a thickness of 30 μm), these tapes is not ruptured or peeled off up to an internal pressure of 30,000 kPa or so. Accordingly, when the gas generating agent **[9a]** **3009a** consisting a nitroguanidine of 20 to 60 weight %, a basic copper nitrate of 35 to 75 weight %, and a guar gum of 0.1 to 10 weight % is formed in a shape shown in Fig. 17 and used in the first combustion chamber 3005a, ignition and combustion can be made smooth. The double-layered stainless steel tape is peeled off by the pressure from the second combustion chamber side.

IN THE CLAIMS:

The claims have been amended as follows:

5. (Amended) A gas generator for an air bag according to [any one of claims 1 to 4] claim 1, wherein combustion gases generated due to the combustion of the gas generating means stored in two combustion chambers reach a gas discharge port through different flow-paths for the respective combustion chambers, and the gas generating means stored in one combustion chamber is never ignited directly by the combustion gas generated in the other combustion chamber.

14. (Amended) A gas generator for an air bag according to [any one of claims 7 to 13] claim 7, comprising a housing a having a gas discharge port, an ignition means including an igniter to be actuated by the impact and a transfer charge, and a gas generating means which is to be ignited and burnt by the ignition means for generating a combustion gas to inflate an air bag, the ignition means and the gas generating agent stored in the housing, wherein, in the ignition means, the igniter and the transfer charge are exactly opposite to each other in the radial direction and they arranged so as to be separated from each other, and/or a flame-transferring hole communicating with the combustion chamber and the transfer charge are arranged so as

not to be exactly opposite to each other in the radial direction of the housing.

18. (Amended) A gas generator for an air bag according to claim 15 [, 16 or 17], wherein two or more combustion chambers storing the gas generating means are arranged in the housing, and two or more ignition means for igniting and burning the respective gas generating means are arranged in the two or more combustion chambers.

21. (Amended) A gas generator for an air bag according to claim 19 [or 20] wherein the total thickness of a plurality of metal thin plates layered except for the adhesive is in the range of 10 to 2000 μm.

22. (Amended) A gas generator for an air bag according to claim 19 [, 20 or 21], wherein the thickness of each metal thin plate is in the range of 5 to 100 μm.

23. (Amended) A gas generator for an air bag according to [any one of claims 19 to 22] claim 19, wherein the thickness of a first adhesive layer provided on a contacting surface between a peripheral edge portion of the communication hole and a first metal thin plate is in the range of 10 to 50 μm.

24. (Amended) A gas generator for an air bag according to [any one of claims 19 to 23] claim 19, wherein the thickness of a second adhesive layer provided on a contacting surface between the first metal thin plate and a second metal thin plate is in the range of 10 to 50 μm.

25. (Amended) A gas generator for an air bag according to [any one of claims 19 to 24] claim19, wherein the communication hole is closed by the metal thin plate from the side of the inner wall of the first combustion chamber.

27. (Amended) An air bag apparatus comprising a gas generator for an air bag, an impact sensor which senses the impact to actuate the gas generator, an air bag to which the gas generated in the gas generator is introduced to be inflated, and a module case which stores the air bag, wherein the gas generator for an air bag is the gas generator for an air bag according to [any one of claims 1 to 26] claim 1.